Curriculum vitae et studiorum of Giuseppe Allodi

Academic degrees

1997: Ph.D. in Physics at the University of Parma.
1992: Laurea degree in Physics magna cum laude, University of Parma.

Academic and research positions

2014-: Associate Professor in Physics at the department of Mathematics, Physics and Informatics of the University of Parma.
2006-2014: Assistant Professor in Experimental Physics at the Faculty of Science and the Physics department of the University of Parma (tenured since 2009).
1998-2005: research position in Parma by Istituto Nazionale per la Fisica della Materia (INFM).
1998: Post-doc annual fellowship by INFM.
1997: Grant within the European project "Epithermal muons" at Rutherford Appleton Laboratory , UK.
1997: Guest at the Institut für Angewandte Physik, University of Hamburg, with a Della Riccia grant.

Scientific activity

Long-standing experimental research on magnetic and superconductor materials by means of local probes of magnetism, especially nuclear magnetic resonance (NMR) and muon spin rotation (μSR) spectroscopies. Research topics in magnetism have spanned, among others:

- Molecular nanomagnets of interest for quantum computing or data storage applications: Cr and Dy rings, Yb-trensal, dysprosocenium, vanadyle;
- single and double-perovskite osmates with strong spin-orbit coupling;
- Fe_2P-based MnFeSiP compounds and Mn-based Heusler alloys of interest for magneto-refrigeration;
- quasi 1D magnets showing orbital order ($KCuF_3$) or exchange frustration ($Ca_3Co_2O_6$);
- colossal magnetoresistance manganites and their insulating precursors, prepared both as bulk material and thin films.

Research in the field of superconductivity has focused over time on:

- Vanadium-based kagome metals $A\,V_3Sb_5$ (A = Rb, Cs, K);
- ;Iron-based oxy-pnictides;
- magnesium diborate $Mg_{1-x}A_xB_2$ and its substitutions (A =Al, Li);
- high-T_C cuprates and their antiferromagnetic parents.

Participant in 7 national research projects (PRIN, FIRB) funded by the Italian Ministry of Education and Research.

Recognized expertise in the application of NMR to the study of magnetic and superconducting materials and in the related instrumentation. Over years, numerous contributions to the equipment of the NMR laboratory of the Physics Department of Parma, in particular:

- design, development, and computer interfacing of two home-built NMR spectrometers optimized for the investigation of magnetic materials, named "HyReSpect" version 1 and 2 [G. Allodi *et al.*, Rev. Sci. Instrum. **76**, 83911 (2005)];
- design and manufacturing of a servo-assisted automatic tuning system for the NMR probeheads.

Other activities

Development of scientific open-source software:

- FMINUIT program for the analysis of experimental data, employed by researchers worldwide;

- GTKNMR program for the control of a home-built NMR spectrometer, currently used also in other NMR laboratories.

Publications

Coauthor of 84 papers on peer-reviewed journals; h-index 21.

Services

Over years, referee for APS journals (Physical Review Letters, Physical Review B) and IOP journals (Journal of Physics: Condensed Matter, Superconductor Science and Technology).

Teaching

2010-: Third-year Physics Laboratory course for undergraduate students in Physics.
2015-: Teacher of General Physics II (electromagnetism) for undergraduate students in Engineering.
2014: Physics Laboratory for the Master course in Physics.
2006-2010: Digital and Analogue Electronics courses for undergraduate students in Physics.

Parma, 12th< January 2026 signature